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Rural Lines

OCTOBER
1956

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for Telephone Systems
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Editor's Note: Administrator Hamil's message this month comprises excerpts from remarks he made recently before a conference of REA electric program field personnel. His personal philosophies as to the past, present and future of rural electrification are outlined.

I VIEW REA borrowers as purely local rural electric systems that are carrying out a community purpose in the highest traditions of our free enterprise system. They are performing a worthwhile and indispensable service. They are to be encouraged to maintain their local and individual identity as businesses of their specific communities. As such, their membership, acting through their boards of directors and management, are to control, motivate and make their own decisions. REA . . . will render advice and encouragement; we will look to the adequacy and security of the loans; we will not dictate to, or make decisions for, these local, independent businesses.

REA does not advocate all public or all private power . . . We will continue to cooperate with the REA borrowers and with (the power marketing agencies of the Department of the Interior and TVA) to assure to the rural electric cooperatives those benefits of Federal power to which they are entitled by Federal and State law.

Generation and transmission loans . . . will continue to be made when necessary to provide: (a) adequate supply of power to meet present and future needs of the REA borrowers; or (b) when such loans will provide such power at a lower cost than alternate available suppliers.

REA borrowers have long served loads that are not strictly agricultural in nature. This is to be expected as rural areas build up and small industry moves farther out in the country . . . Our policy is to meet all legitimate loan needs within the meaning of the Rural Electrification Act, and I look on such (rural industrial) loads in no different light than any other. The question of advisability rests with the REA borrower.

. . . REA borrowers . . . are an integral part of the nation's utility system . . . in the final analysis they will succeed or fail according to the type and cost of service they render to their consumers. For this reason REA must likewise measure and evaluate its actions toward these borrowers, keeping ever uppermost in mind better service at lower cost.

As a rancher, I know that in order to stay in business I must be competitive. This requires that I adapt my operations to changing times and changing conditions. I could not operate today as I did 20 years ago. I would be out of business. This applies to rural electric systems. To stay in business they must be competitive and to be competitive they must adapt to changing times and conditions.

AEC is the Federal agency responsible for the development of atomic power. It is looking for people with money to help develop it, and our co-ops should not get involved beyond their ability to pay. As a Federal agency ourselves we have a close working agreement with AEC. We are constantly informed of the progress in this field. When atomic energy is competitive we will be among the first to know about it.

Fall Housekeeping



Plan Now For Better Service, Lower Maintenance Costs

SOME intensive housekeeping work at this time of the year can reduce system maintenance costs as well as assure better service to subscribers during the winter months, REA operation and maintenance engineers point out.

Drawing a comparison with the special fall housekeeping duties of a homeowner in getting his house, garage, gardens and shrubbery cleaned up and shipshape before cold weather sets in, the engineers remind telephone borrowers that they have more important, though perhaps less well defined, duties in clearing up all plant weaknesses to cut down service failures during severe winter weather.

Preventive maintenance work in the late fall that forestalls some of the winter service interruptions means better satisfied subscribers and fewer bad weather trouble calls—trips that can be disastrously expensive in vehicle and labor costs. Since plant main-

tenance cost is one of the major operational expenses, the maintenance program carried out by a company could mean the difference between profitable and non-profitable operations.

Following is a check-list prepared by the engineers covering points that require attention by the late fall:

1. Cut down danger trees and trim tree limbs and foliage near lines and cable and in drop wire runs.

2. Correct nonstandard clearance conditions between telephone plant and power lines, buildings and other structures where increased sag from sleet or snow loads may cause damage or create hazardous conditions.

3. Correct uneven or low aerial wire sag that may cause mid-span hits in windy areas.

4. Install vibration dampers to reduce wire abrasion where tension is increased to prevent mid-span hits.

5. Repair or replace corroded wire and strand since they will be



Old plant should be cleared away to avoid damage to new construction. It is also a liability on the company in the event of injury to humans or livestock.

under considerably more load in winter and are likely to break under storm loads.

6. Check all leaning poles to find out the cause of the abnormal condition. Anchors may pull out slightly during the winter months under heavier loading, and then with wet spring weather will give way still more and cause serious trouble.

7. Replace or repair all broken insulators, loose tie wires and damaged cross-arm braces.

8. Tighten all loose cable lashing wire and loose lashing wire clamps; replace missing cable spacers.

9. Replace damaged lightning arrestors and power contact protectors; check to see that ground connections are tight.

10. Repair damaged or broken cable terminal covers.

11. If there is any of the old pole line and wire plant which has

Gusty winter winds combined with excessive aerial wire sag can cause dangerous contacts like this with power lines.

not been removed, now is the time to complete the job. Experience has proven that many service interruptions to new plant are caused by interference from old abandoned plant.

Good fall housekeeping should also include disposal of all leaves, weeds, shrubbery and trash around buildings, pole yards and material storage areas to prevent fire in the dry season, and later to prevent snow drifting up to hinder access to materials.

Building interiors should be cleaned up, fire extinguishers checked and refilled for proper operation. Inspect and overhaul heating and conditioning plant to avoid failure during cold weather.

Get your vehicles and work equipment in top shape and equip them for winter use. Maintenance work now can eliminate later delays in readying such equipment for use, as well as lost time from breakdowns.

Preventive maintenance is a year-round job on well operated telephone systems. The foregoing points are listed for special attention at this time of the year, and should not suggest any letup in the regular maintenance program.

REA's Telephone Operations Manual contains valuable pointers for telephone system management in Section 1356, "Maintenance of Outside Plant." It is especially useful in areas where severe winter weather handicaps work activities, and many hints in addition to the above mentioned obvious points can be picked up.





Preventive maintenance in the fall is especially important in isolated areas like this, where winter operational failure would mean some expensive service trips.

The manual recommends a continuing preventive maintenance program based on day-to-day inspections and corrections by plant personnel while going about their normal duties, and provides a sample form, "Report of Plant Conditions," for the employee to fill out for his supervisor. Corrective measures that cannot be handled routinely are then scheduled as special work assignments. This preventive work eliminates many later emergency trouble calls to correct operational failures.

Section 1238 of the manual, "Trouble Reporting Records and Procedures," tells exactly how to use trouble tickets and reports of plant condition to help maintain a smoothly operating plant. It outlines how management can analyze these reports to keep a running record of the condition of the plant, to detect trends of trouble load and to budget plant operating expenditures.

The day-to-day inspection by plant personnel must be supplemented by annual inspections. This is especially important in areas where there are many miles of open wire not regularly visited by the working force during their

ordinary duties. This inspection will assure detection of plant deterioration before operational failure results and major emergency repair jobs are required.

REA engineers recommend the fall season for this annual inspection so that immediate needs can be taken care of before the onset of severe winter weather. Other less urgent corrections can then be scheduled during the winter months as the workload permits, resulting in the most economical use of plant men and equipment.

Tree trimming at this time of the year will prevent winter damage, when storms could result in broken or fouled wire.



Keeping Pace With Progress

**West Coast Company
Ties Together
Booming Area**

SUBSCRIBERS were few and far between in Whatcom County, Wash., when the Farmers Mutual Telephone Company was organized more than 50 years ago.

Recent years have brought changes in the area and the population took a healthy jump with the development of the Birch Bay resort area on Puget Sound and the establishment of a \$40 million oil refinery at Ferndale.

Farmers Mutual, with headquarters at Lynden, has used REA loans to extend and improve its facilities and keep up with the area's demand. Manager Milton Larson told the RURAL LINES reporter that Mutual's listing now numbers some 7,800 subscribers. Instead of the old system of "party lines" for a handful of users, there are now 10 smooth running dial exchanges.

Today nearly every county resident has a telephone. Added to the subscribers among the dairy, poultry and berry farmers of the Nooksack Valley are the resort area residents and a large block of oil refinery employees. That installation also meant a 100-station PABX account for the phone system.

Mr. Larson, who came up through the ranks, points out that the company's investment per station is less than \$300, due he says, to Whatcom county's good roads, open, flat country and high density of subscribers. Mutual's service area extends to the foot of the Cascades on the east, westward to Puget Sound and northward to the Canadian border.

The company has installed a new punch card system for customer and toll billing which, Mr. Larson said, not only assures more accuracy but will pay for itself in savings.

In June after the last of its exchanges was cut over to dial, the company held an "open house" which through well planned advance promotion by Mr. Larson attracted more than a thousand visitors to the Lynden exchange. They toured the plant, enjoyed music and light refreshments and viewed telephone equipment displays. As a result of a display of colored phones, 60 sets were ordered, leading Mr. Larson to plan a similar display this fall along with promotion and advertising in the county papers.

Value of Farmers Mutual to the community was expressed editorially in June by the *Lynden Tribune*: "You can feel proud of this hometown institution which has completed an amazing remodeling program. Binding the area together into one big family, the telephone company makes possible toll-free calls to all northern parts of the county, furthering business and social activities. This is one of the few places in America where you can phone 60 miles without a toll charge."

This West Virginia Telephone Company Owner Has Found That

Community Service Pays

HARD work and community service, with an assist from an REA loan, are the principal ingredients that go into the success story of the Home Telephone Company, New Haven, W. Va.

Back in 1935 when Donald Roush bought the firm, then called the Longdale Telephone Company, it served 51 subscribers in the Bend area of Mason county. Today the company provides modern dial service to 774 farm and town subscribers. The gain represents years of hard work and sacrifice by Mr. Roush and his wife whom he married in 1938.

During his first four years as owner of the telephone company, he worked full-time as assistant cashier at the Mason County Bank, operating his telephone system in his spare time. Then Mr. and Mrs. Roush decided to devote all their time to the growing telephone system, with the latter serving as operator, bookkeeper, secretary and filling in at other jobs as well.

To try to keep up with the rural community's rapidly growing needs for telephone service, Mr. Roush took on other jobs and funneled most of his wages into his company. Mrs. Roush recalls that at one time she and her husband cashed bonds they had been saving to buy a house and used the money to buy telephone poles in-

stead. But even by re-investing all available funds back into the telephone company, they were unable to keep up with the expansion needs.

Meanwhile Donald Roush, despite a backbreaking schedule of work, was setting something of a record for participation in community affairs, an example of civic leadership that was to earn for him in 1954 the title of "Man of the Year" from the New Haven Lions Club. Among the activities during those years that won his neighbors' admiration was his work as a member of the Town Council, president of the New Haven Rotary Club, member of the County School Building committee, member of the Junior Order United American Mechanics, chairman of the Recreation Foundation of New Haven, treasurer of the New Haven Businessmen's Association and second vice-president and former secretary-treasurer of the West Virginia Independent Telephone Association.

Mrs. Roush kept active in community affairs in the Garden Club and the Women's Club of New Haven.

By 1949 the company had built its customer list to 380 subscribers on its magneto-operated system and had reached the limit of expansion possible through private funds. It was that year that

Congress authorized the REA Telephone Loans program, and the Home Telephone Company was among the very first to inquire about financing.

With the help of REA loans, President-manager Roush has been able to expand and modernize his facilities to provide up-to-date dial service to the 774 subscribers. Included in the expansion program was the construction of a completely new building

at Letart to house the unattended dial exchange equipment serving that area. The main building in New Haven, containing the rest of the central office equipment, was remodeled and enlarged for more efficient operation.

The story of the Roush family and their Home Telephone Company can be summed up as one of hard work and unselfish devotion to the continued progress of their community.

Texas Co-op Gives Phones To Mission Hospital

Hand-crank telephones outdated by conversion to dial in Taylor County, Texas, are now marvels of modern communication in Joinkrama, Nigeria, bringing more efficiency to the Southern Baptist Mission hospital there.

The phones were given to Missionary Aletha Fuller, of Abilene, by the Taylor Telephone Cooperative, Inc., headquartered at Merkel. Three were installed at the hospital in 1953 and six more were in Miss Fuller's luggage when she returned to her African post recently.

President Charlie T. Myatt

saved the telephones for the mission when the co-op's 11 exchanges were converted to dial system recently, bringing improved modern service to more than 800 subscribers.

Miss Fuller, returning to duty as nurse at the jungle hospital after a year's furlough, reports that the phones have saved valuable time and many a step for the hardworking staff who formerly had to walk from building to building for communication.

All the phones will be used for inter-hospital communication, as there are no outside lines in the area.

Charlie T. Myatt, president of the Taylor Telephone Cooperative, is shown with Miss Aletha Fuller as she admires one of the telephones the co-op gave to the Southern Baptist Mission hospital in Nigeria where she is a mission nurse.



Third Generation Takes Over Texas System

When Jess Turner, Jr., took over ownership of the Palo Pinto and Possum Kingdom telephone exchanges last year, it marked the third generation of Turners to operate a rural telephone system in Palo Pinto county, Texas.

Each of the three Turners—C. N. Turner, J. N. Turner, Sr., and now Jess, Jr.—has played an important and continuing role in the development and growth of Palo Pinto county. Through two major World Wars, Turner-operated telephones have provided the key to the economic and social life of the bustling rural area.

Now, nearly 40 years after C. N. Turner bought the little company from a Mr. Whitaker, grandson Jess has announced plans for conversion of a second magneto exchange to dial.

C. N. Turner, the family's telephone pioneer, operated exchanges at Palo Pinto, Graford,

Salesville, Perrin and Whit. In 1924, J. N. Turner, Sr. purchased the telephone company's interests from his father and a brother, Grady Turner, of Mineral Wells. Ten years later, he built a line to Possum Kingdom, location of a C.C.C. camp.

In 1948, soon after Jess, Jr. returned from war service, he became a partner with his father. One of the first jobs father and son tackled was to convert the Possum Kingdom exchange in the Morris Shepherd Dam area.

Since young Jess, Jr. became sole owner of the company in March, 1955, he has worked out plans for converting the Palo Pinto and Millsap exchanges to dial, a project financed with REA loan funds. Conversion of the two exchanges, along with the dial operated Possum Kingdom unit, will increase the company's subscribers from 175 to about 500.

REA Staking School Series Continues

Staking personnel of consulting engineering firms and REA telephone borrowers have attended staking conferences sponsored by REA in various parts of the country in recent months.

Latest meetings were held in Portland, Ore., September 4-6, Columbia, Mo., September 10-12 and Des Moines, Ia., August 7-9.

Purpose of the conferences is to review engineering standards for the staking of outside plant financed by REA loans and to review the proper utilization of construction assembly units specified by REA.

R. W. Lynn, chief of REA's Telephone Engineering Division, said of the conferences: "These training meetings held in various parts of the country should improve understanding of REA specifications. They should result in improved staking of lines from the standpoint of sound engineering practices and more economical construction."

The series is being carried out in line with recommendations made by consultants on the rural telephone program who met in Washington last January. The first meeting was held in New York City in February, and another was held recently in Maine.



Pretty girls "hold the phone"—modern automatic dial, of course—on the Chariton Valley Telephone Corporation float in the Bynumville parade in August.

Big Dial in Bynumville

MORE than 1,500 citizens of Bynumville, Mo., took part in an all-day celebration in August marking the introduction of modern automatic dial telephone service by the Chariton Valley Telephone Corp.

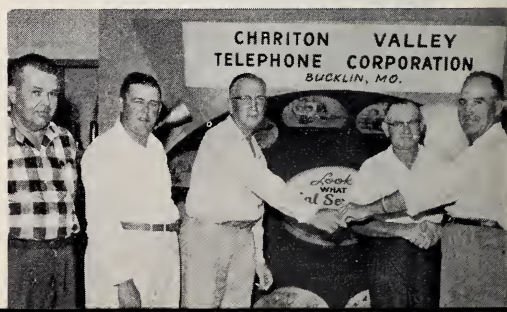
Earl Bennett, manager of the telephone system which has headquarters in Bucklin, announced that the company is in the process of converting its other four exchanges to dial through REA loans. In November the company is scheduled to take over five other exchanges.

Observance of the history-making cutover included a parade through the town, dinner served by extension clubs of the community, band concert and addresses by town, county and government officials.

First long-distance call on the new dial system was made by Mrs. Anna Wilson, former operator in the Bynumville exchange, to her daughter in California.



Following the annual meeting of the Chariton Valley Telephone Corporation in Bucklin, President George T. Holman (right) congratulates directors elected to three-year terms. From left are Earl Bennett, manager, and directors, Charles Harmon, Ted Cotter and Sherman Hayden. In background is REA's telephone exhibit, first shown here.



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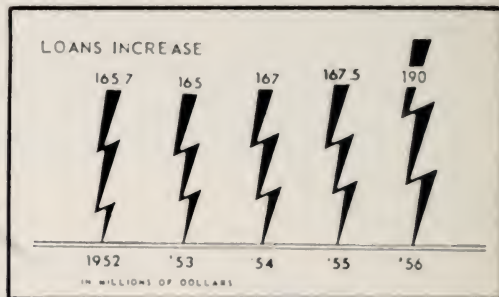
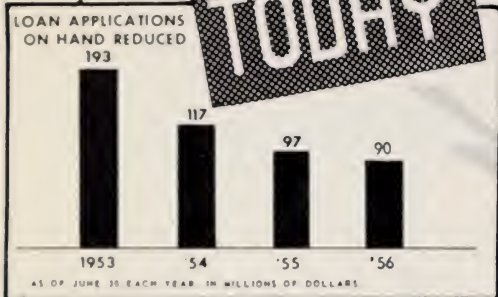
**NATIONAL
POWER USE
WORKSHOP**
OCT. 14 · 15 · 16

MILWAUKEE

See page 14 for details



REA PROGRAMS



Progress, vitality and accomplishment—that's a quick picture of the REA programs today. The rural electric systems financed by REA loans are constantly giving better service, at lower costs, to more people. Rural telephone loans and construction are at record levels, bringing modern dial communication service to the countryside in increasing volume.

Loan needs being met. Electric loans last fiscal year totaled \$190 million. Backlog of electric loan application is down to \$89 million, lowest since World War II. Telephone loans during the year set a new record, \$81 million. Backlog of telephone loan applications is half of what it was in 1953.

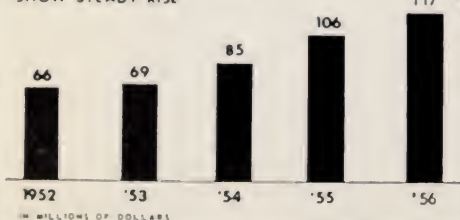
Loan processing has been stream-

lined. REA has expedited the handling of loan applications. This speeding up of loan processing, in many cases by 50 percent, has given borrowers more prompt action on applications.

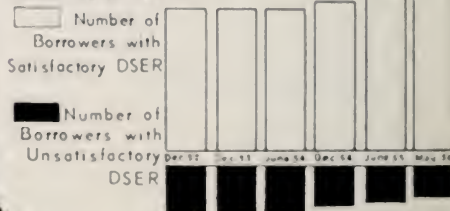
For my part, I believe it is REA's responsibility to meet every proper and feasible loan need and, as Administrator, that will be one of my prime objectives . . . the big job we now face is that of putting electricity to work around the clock in agricultural production and in advancing standards of comfort and convenience in rural America.

Power needs being met. The borrowers are meeting the growing power needs of their consumers and REA made \$61 million

PRINCIPAL AND INTEREST PAYMENTS SHOW STEADY RISE



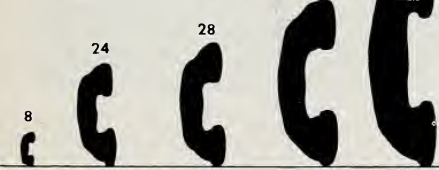
DECREASE IN BORROWERS WITH INADEQUATE MARGINS



discussion of REA programs at the
rural Electric Cooperative Association

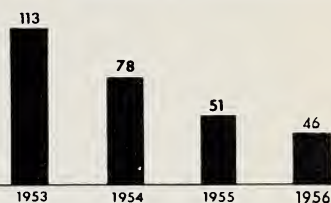
MOVE FORWARD

BORROWERS DRAW MORE MONEY
TO FINANCE CONSTRUCTION



LOAN ADVANCES IN MILLIONS OF DOLLARS

PENDING APPLICATIONS REDUCED



AS OF JUNE 30 EACH YEAR, IN MILLIONS OF DOLLARS

in loans for generation and transmission facilities where they will provide 188,000 kilowatts of new generating capacity and 2,700 miles of transmission lines.

More farms getting electricity. Electrification has now reached nearly 95 percent of all farms. About 70,000 farms are receiving electric service for the first time each year.

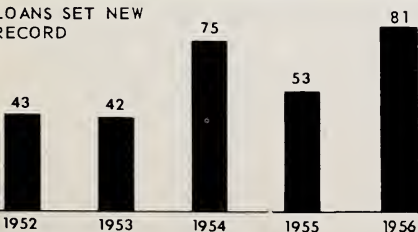
Only half the farms have telephone service and much of this is not good modern service of the quality farmers need and should have . . . It is my purpose as Administrator to try to improve this situation. The objective of the REA telephone program, as I read the Act, is to get modern telephone service onto the farms

and ranches of this country. We are going to keep REA steered toward that goal.

Telephones serving more farms. Farms with telephone service, according to census figures, increased 10 percentage points from 1950 to 1954. Today about half of all farms have telephones. Nearly 800,000 subscribers in rural areas will receive initial or improved service from REA loans made to date.

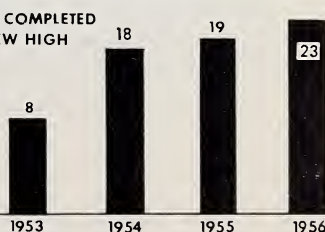
Most borrowers current in loan repayment. Only 10 electric borrowers were behind in payments at the end of fiscal 1956, in the amount of \$332,364. Twenty-eight telephone borrowers were \$430,000 in arrears.

LOANS SET NEW
RECORD



IN MILLIONS OF DOLLARS

LINES COMPLETED
AT NEW HIGH



MILES OF LINE IN THOUSANDS

Third Annual National Power Use Workshop Stresses Importance of

Year-Round Promotion

PLANNING power use promotion on a year-round basis will be the main theme of the third annual National Power Use Workshop slated for October 14-15-16 at the Milwaukee, Wisc., Auditorium.

Sponsored by the Inter-Industry Farm Electric Utilization Council, the two-day session will be packed full of ideas on how to promote the use of electric-powered farm production equipment and the household appliances that add most to rural living.

Fred H. Strong, Deputy Administrator of REA and chairman of the Inter-Industry Council, says, "The 1956 Power Use Workshop program recognizes the need for planning power use activities on a year-round basis, and for promotions that will help power suppliers build net return."

Mr. Strong also pointed out that the Workshop schedule has been arranged so that no participant need miss any part of the program, with only one panel discussion being presented at any one time.

Hamil Keynoter

Keynote address of the Workshop will be delivered at the Monday morning session by REA Administrator David A. Hamil. Other speakers slated to give principal talks are John E. TePoorten,

of the Wisconsin Schools of Vocational and Adult Education, Madison, and Karl H. Runkle, manager of General Industry Sales Development, General Electric Co., Schenectady, N. Y.

Five panel discussions will be held during the general sessions of the Workshop on Monday and Tuesday, October 15 and 16, featuring tested sales promotion plans and techniques developed by state or local inter-industry groups. The panel topics and their leaders are:

WHAT MAKES STATE COUNCIL ORGANIZATIONS FUNCTION? Leader, G. L. Doak, manager of dealer department, Fairbanks, Morse & Co., Atlanta, Ga.

MAKE THE BEST USE OF THE SALES PROMOTION HANDBOOK. Leader, Everett M. Myers, vice-president, F. E. Myers & Bro. Co., Ashland, Ohio.

HOW TO PLAN AND CARRY OUT A LOCAL SALES PROMOTION PROGRAM. Leader, M. G. Hyltin, manager, Lower Colorado River Electric Cooperative, Austin, Texas.

USING YOUR POWER USE PROGRAM TO BUILD NET RETURN. Leader, W. G. Newton, manager, South Plains Electric Cooperative, Lubbock, Texas.

HOW TO GET OTHERS TO CO-OPERATE WITH YOUR PROGRAM. Leader, Fred Hout, executive vice-president, Barnes Pump Co., Mansfield, Ohio.

Each leader will be aided in the panel discussions by representatives of manufacturers, distributors, electrical contractors, agricultural colleges and extension services and power suppliers.



John E. TePoorten

Registration for the Workshop will run from 4 to 6 p.m. at the Schroeder Hotel on Sunday, October 14, and from 8 to 9 a.m. on Monday morning at Kilbourne Hall of the Municipal Auditorium. Members of the national Inter-Industry Council will have a dinner meeting with officers and members of state inter-industry power use groups Sunday evening.

Chairmen Listed

General sessions of the Workshop will be held on Monday and Tuesday. Chairmen of these sessions are:

Monday morning: Mr. Strong.

Monday afternoon: N. Bernard Gussett, president, Iowa Power & Light Co., Des Moines.

Tuesday morning: Don Willis, vice-president, Arizona Public Service Co., Phoenix.

Tuesday afternoon: A. D. Mueller, general manager, Indiana Statewide Electric Cooperative, Indianapolis.

Extensive exhibits and displays of various materials, devices,

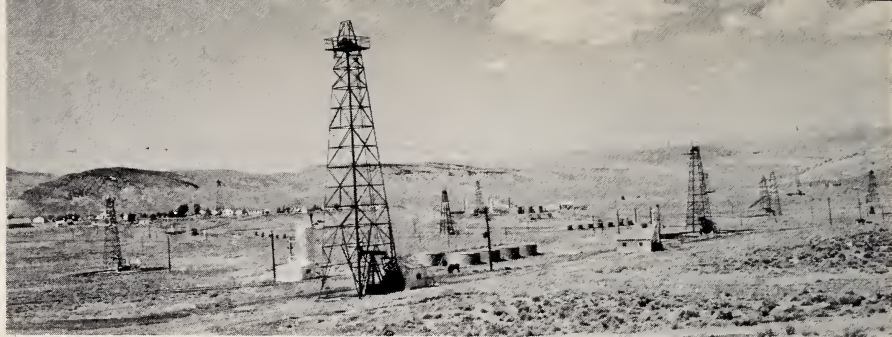
techniques and publications now being used to advance electric farming will be on view at the auditorium for the Workshop participants. Manufacturers will show heat pumps and newest farmstead lighting installations, along with other new equipment.

Inter-Industry Members

Members of the Inter-Industry Farm Electric Utilization Council are Oliver Kimbrough, manager, Farmers' Electric Cooperative, Clovis, N. Mex.; W. W. Lynch, president, Texas Power & Light Co., Dallas; John P. Madgett, manager, Dairyland Power Cooperative, LaCrosse, Wisc.; R. W. McClure, vice-president, Kansas Power & Light Co., Lawrence; J. K. Smith, manager, Kentucky Rural Electric Cooperative, Louisville, and C. V. Sorenson, vice-president and general manager, Indiana & Michigan Electric Co., Fort Wayne, Ind. Mr. Strong, chairman, is a non-voting member of the Council.



Karl H. Runkle



**Wyoming Co-op Helps Rural
Area's Economy by Serving**

Farm and Industry

THE coming of electric light and power to Hot Springs and Natrona counties in Wyoming touched off an era of better times, and any way you look at it electricity is playing a big part in the farm and industrial life of the area today.

Manager Dan Miller, of the Hot Springs County Rural Electric Association, told a RURAL LINES reporter that such high load consumers as irrigation pumps and oil pumps have boosted power consumption to nearly 21 million kwh yearly.

The co-op, with headquarters in Thermopolis, isn't large as far as members go. About 673 customers are served, including 325 farms. But the consumption of electric power has been increasing steadily even in the face of four years of subnormal rainfall.

When farmers in the area began electric irrigation, production of hay alfalfa and small grain crops improved, with consequent improvement in the section's economy. Nineteen irrigation pumps now on the line average 10 hp. Forty more pumps are expected

to be installed in the near future. Some farmers pump from wells, but the majority pump from the Big Horn and North Platte Rivers and their tributaries. Although irrigation water has been in somewhat short supply for several years, the good mountain snowfall of the past year promises better times.

Another boost to the irrigation farmers will come from the proposed Anchor Dam on Owl Creek, a part of the Missouri River Basin Project. This will provide supplemental irrigation water for about 13,000 acres of farmland and will assure a steadier supply for their crops.

Oil wells and pipe line pumping stations use more than 18 million kwh annually. Added to that is the development of the Gas Hills area of Hot Springs county as a rich source of minerals. That 50-square mile area is the most important uranium district in Wyoming. Several companies are producing regularly and shipping to the Riverton buying station 75 miles away. Some authorities believe the Gas Hills area gives

promise of developing into one of the richest uranium sources in the United States.

In addition to the mining companies already operating and those planned, a new \$5 million processing plant is in the works, an installation which will require large amounts of electric energy and power.

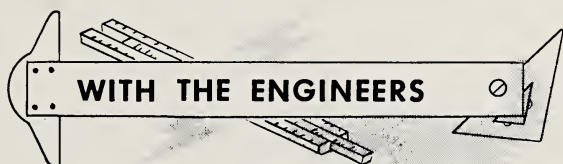
With such good load makers on the line, you'd think Hot Springs Co-op would be pretty well set as far as revenue goes. But Mr. Miller says he wants to see the individual consumers make more extensive use of electric power for more convenient living and for easier and better farming.

"We've seen what electric irrigation has done for crops, and now we'd like the farmers to get the fullest use out of household appliances and farming devices.



This 10 horsepower irrigation pump motor in Owl Creek Valley, nine miles from the town of Thermopolis, is on the lines of Hot Springs County Rural Electric Association. On opposite page is view of oil field served by the co-op.

"We buy our electricity wholesale from the Bureau of Reclamation grid system or Missouri River Basin Project and we know that we can offer our consumers a real bargain in the use of electric power."



Scrap ACSR is suitable for that portion of the ground wire which is above the ground line. **Do not use it underground!**

• • • • •

Clamps or connectors for aluminum-to-aluminum and aluminum-to-copper should be made of aluminum or aluminum alloy—not of bronze.

• • • • •

The manufacturer's bond on your roofing may be voided if maintenance is neglected.

• • • • •

Check the expiration date on your two-way radio station license. Can you operate effectively for two months or longer without your two-way radio?

• • • • •

Cutout tubes in the open position collect rain water and fail. Store unused tubes in a suitable enclosure.

Irrigation Tour

NORTHWEST Iowa farmers, co-op managers and power use advisers who toured the productive, irrigated croplands of western Nebraska in mid-August, took a good look at modern crop watering techniques and liked what they saw.

Their host, the Nebraska Inter-Industry Electric Council, mapped out a five-day tour of deep well irrigated areas that left the Iowans asking for more of the same. In fact, they had so much fun and stored up so much "know how" about electrified irrigation methods that it's likely there'll be more and bigger tours out that way.

The interstate tour was the first one of its kind to be sponsored by

a statewide inter-industry council and another step by the council to help rural people to live better electrically.

The Nebraska tour developed from a series of evening irrigation classes planned for farmers and power use advisers by individual rural electric co-ops of northwest Iowa. Class topics covered the general field of irrigation and were well attended. But the classes only aroused farmers to seek more information about irrigation techniques, motors and pumps.

One farmer was heard to say, "Those irrigation meetings just whet our interest. There's still plenty we don't know about the irrigation job."

Someone suggested that Iowa farmers tour some of the top irrigation systems in neighboring Nebraska. The idea caught on fast and soon the tour plans were being worked out.

Chas. A. Palmer, president of Nebraska Inter-Industry Electric Council, named John Spielman, REA operations field representative, M. J. Mumgaard, extension irrigation specialist, Vance Anderson, equipment manufacturer, Paul Fischback and Maurice B. Johnson to the tour planning committee. George Gerking, manager of Monona County Rural Electric Cooperative, Bob Turner and Dean Price, of REA's Iowa field staff, took on the task of coordi-



Tour members closely watch this demonstration of the use of syphon tubes in distributing irrigation water to individual furrows in this rich Nebraska field.

nating and promoting things from the Iowa end. Lynn Ludlow, REA irrigation specialist, gave overall technical assistance to the tour planners.

As Mr. Gerking explains, "We wanted to take our farmers to Nebraska where irrigated farming has been so successful. Moisture has been scarce in northwest Iowa the last few years and it looks like we'll have to swing into irrigation to beat these dry spells.

"We heard, for example, that in Dawson County, Nebr., there were some 1,800 deep irrigation wells operating and that several thousand more wells were on the way. We knew crop yields were good there and that irrigation was the answer. Our farmers wanted to find out why irrigation paid off so well for the Cornhuskers."

The committee provided the tourists with a balanced schedule of classroom sessions, field demonstrations and close-ups of irrigation equipment being put to-



George Gerking, one of tour committee members, explains the importance of proper equipment and controls with electric pump irrigation installations.

gether. One thing sure, the tour program was popular with the group and diversification seemed to be the key to programming.

Iowans toured Nebraska irrigated areas in a chartered, air-conditioned bus, making stops at Valley, Columbus, Hastings, Kearney, Franklin and Lincoln.

Farmers were good listeners,



Here the visitors see a method of measuring water flow, one of the steps in testing irrigation pump efficiency. Several measuring methods were demonstrated.



Electric irrigation really pays off, the visiting Iowans found in this rich field of corn near Columbus, Nebr., scene of this year's national corn picking contest.

pressed tour leaders for answers to irrigation questions and were among the last to leave field demonstrations. Power use advisers who are helping farmer-consumers with new electrified irrigation installations, and who face the problem of stepped up kwh usage, were keenly interested in new irrigation developments.

Here are some of the tour highlights:

Monday — Demonstrations of self-propelled sprinkler sets, one of irrigation's newest developments, and a visit to an irrigation pipe factory.

Tuesday — Tour of irrigation pump manufacturing plant to see how pumps are made and tested, general discussion of pumps and pump problems.

Wednesday — Visits to farms to see well designed pump house, rotary well rig, land leveling and methods of distributing irrigation water with sprinklers, syphon tubes, check gates, underground

and gated pipe and corrugations.

Ed Koza, manager, Dawson County Public Power District, Lexington, Nebr., talked on problems the district has encountered in serving the irrigation load; L. L. Silver, head of Buffalo County Soil Conservation Service headquarters, discussed soils and water for irrigation, and John P. Spielman, of REA, talked on irrigation loads and the power supplier.

Thursday—Tour of the Franklin Irrigation Development Farm near Franklin, Nebr., a privately owned farm whose owner follows the practices recommended by the agricultural technicians of the State.

Friday — At the University of Nebraska discussion topics included: "Ground Water Resources," E. C. Reed, director of the university's conservation survey division; "Pumping Costs," Paul Fischback and Mike Mumgaard, extension irrigation specialists, and "Irrigation Research in Nebraska," L. W. Hurlbat, chairman, department of engineering of the university.



This self-propelled sprinkler irrigation system, which automatically traverses a 40-acre field, attracted close attention from all the touring Iowans.

Irrigate **LIVE BETTER** *...Electrically* Pearsall, Texas, Exposition

To Feature Newest

Methods

IRRIGATION farmers in South Texas will see and hear about the latest irrigation equipment and methods at the day-long South Texas Electric Pump Irrigation Exposition at Pearsall, Texas, on November 9.

Sponsored by two REA-financed distribution co-ops, Medina Electric Cooperative, of Hondo, and Rio Grande Electric Cooperative, of Brackettville, the exposition will run from 8 a.m. to 10 p.m., and will be an exhibit-demonstration-lecture type of program. The session will acquaint farmers with the latest equipment, application methods, production, crop conditioning, marketing and other related phases of irrigation agriculture, as well as domestic and farm water systems.

Bonner Carl, power sales representative of the Medina Co-op, is the chairman coordinating the work of the co-ops, agricultural agencies, equipment manufacturers and distributors and civic organizations. He has lined up exhibits and demonstrations of all types of irrigation pumps, pipe, nozzles, land preparation equipment, fertilizing and seeding equipment, home and farm water systems and related equipment.

Among the lecturers on the pro-

gram are R. V. Thurmond, extension agricultural engineer and irrigation specialist of Texas A & M College, and Guy Woodward, educational director of the Sprinkler Irrigation Association.

Riggs Shepperd and Thomas Hurd, managers of the Medina and Rio Grande Co-ops, believe the exposition will be especially valuable in this drought area where the general economy is so dependent upon the most efficient application of deep well irrigation. Interested persons from other areas are welcome to attend, they said.

Among other groups assisting in the Exposition are REA, Soil Conservation districts, Farmers Home Administration, Farm Bureau, State and county agricultural extension services, agricultural stabilization and conservation committees, Soil Conservation Service, vocational agricultural departments of schools and colleges, local chambers of commerce, State Board of Water Engineers, U. S. Geological Survey, transportation, jobbing processing and marketing agencies, and press, radio and TV.

The Exposition will be held at the 4H-FFA and Frio Livestock Sales Company grounds and buildings at Pearsall.

Safety Conference **October 15-19**

The 14th National Rural Electric Job Training and Safety Instructors' Conference will be held October 15-19 at the Battery Park hotel, Asheville, N. C. Harold Brown, Wyoming rural electric instructor, is program chairman.

PIONEER

Back in the early 1930's Travis James and some of his rural neighbors near Humboldt, Tenn., were so firmly convinced of the advantages of electricity on their farms that they built their own line in order to buy electric power from a utility company.

It was a hard-earned improvement, the farmers purchasing their power at the rate of 15 cents per kwh. But their determination eventually paid off handsomely, and now electric service is no longer a luxury but an everyday convenience for thousands of residents in the area.

When it appeared that TVA power would become available in the northwest section of the State, Mr. James began working with a group of farm residents on the formation of an electric cooperative. He traveled the countryside preaching the blessings of farm electricity and selling the idea of a co-op to bring those blessings home. When the first annual meeting of the Gibson County Electric Membership Corporation was held in August, 1936, he was elected to the board of directors. Since 1944 he has held the post of secretary-treasurer. In 20 years as a director he has maintained unflagging interest in extending and improving the co-op's service.

Mr. James is an ardent booster of low-cost electrical service for



Travis James

farm areas. He says that in his opinion rural electrification has done more to improve the living standard of farm people than any activity or movement of this generation.

Although all his neighbors now have electric service, Mr. James hasn't rested on his laurels. He takes a great deal of time from his successful truck, cotton and live-stock farm to devote to the affairs of the co-op. The thriving Gibson County EMC, with headquarters in Trenton, serves seven counties in northwest Tennessee, with approximately 21,000 consumers on its 2,620 miles of line.

Mr. James has earned a reputation as a sparkplug at co-op and regional meetings by his ability to arouse and hold members' interest in keeping dependable low-cost service. He says that all farm people are entitled to efficient and economical electric service and has no intention of slowing down his activities towards that end.

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POWER USE EXCHANGE



More than 400 customers purchased electric frypans from the **Wheat Belt Public Power District**, Sidney, Nebr., during a promotion lasting several months. Customers were given a 10-day free trial and a special price of \$14.89 on a 10-in. frypan. *The Wheatbelt Electric News* reports that a survey shows that more than 800 customers are now using electric frypans.

An electric range rental plan has been started by the **Southeast Colorado Power Association**, La Junta. In *Kountry Kilowatt*, co-op newsletter, members are informed they can rent a new automatic electric range from the association for \$4.90 per month, plus sales tax, for one year. Anytime during the year the member may buy the range he is renting, or buy any other range from the association, or buy any other range sold by any other dealer. When a range is purchased by any of these three methods, half of the rental charge paid to that date is refunded.

During the first year of consumer financing under REA Section 5 loans, members of the **Satilla REMC**, Alma, Ga., bought 1,500 major appliances through the plan. About thirty appliance dealers in the area have been ap-

proved by the co-op directors to utilize the plan.

More than 500 members of the **Blue Ridge EMC**, Lenoir, N. C., changed to electric cooking during the first seven months of this year. The co-op promotes dealer sales of electric ranges by giving six months of free power, at the rate of \$2 per month deducted from the electric bill, for all members who switch to electric cooking.

A new electric water heater rate set up by the **Halifax EMC**, Enfield, N. C., encourages use of the heaters and saves money for the members. *The Co-op News* points out that 226 members having approved type electric water heaters saved a total of \$390.54 over the regular rates during a 30-day period, urging all members to get in on the savings by using electric water heaters and taking advantage of the special rate.

The 1956 Farm Electrification Conference, sponsored by AIEE, will be held at the Peabody Hotel, Memphis, Tenn., Oct. 29, 30, 31. Subjects will be of interest to REA borrowers managers, electrification advisers and engineers. Plan to attend.

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Brookville, Pa.
339,000 Lane County Electric Co-op,
Eugene, Ore.
156,000 Central Electric Co-op,
Redmond, Ore.
255,000 Ralls County Elec. Co-op Ass'n,
New London, Mo.
76,000 Renville-Sibley Co-op Ass'n,
Danube, Minn.
956,000 Swisher County Electric Co-op,
Tulsa, Tex.
184,000 Douglas Electric Co-op,
Roseburg, Ore.
319,000 Valley County Electric Co-op,
Glasgow, Mont.
157,000 Golden Valley Electric Ass'n,
Fairbanks, Alaska
* 50,000 C & L Rural Electric Co-op,
Star City, Ark.
230,000 Greenbelt Electric Co-op,
Wellington, Tex.
165,000 Ark Valley Elec. Co-op Ass'n,
Hutchinson, Kan.
1,830,000 Consumers Power, Inc.,
Corvallis, Ore.
9,000,000 Loup River PPD,
Columbus, Nebr.
17,000,000 Cent. Nebr. Pub. Power & Irr. Dist.,
Hastings, Nebr.
254,000 Spoon River Electric Co-op,
Canton, Ill.
182,000 Nyman Electric Co-op,
Stanton, Iowa
118,500 McCook Public Power District
McCook, Nebr.
610,000 Cotton Electric Co-op,
Walters, Okla.
705,000 Farmers Rural Electric Co-op,
Glasgow, Ky.
575,000 Clark Rural Electric Co-op,
Winchester, Ky.
193,000 Gunnison County Electric Ass'n,
Crested Butte, Colo.
925,000 Jackson Electric Co-op,
Edna, Tex.
730,000 Lincoln County EMC,
Fayetteville, Tenn.
* 100,000 Roosevelt County Electric Co-op,
Portales, N. Mex.
125,000 Ashley-Chicot Electric Co-op,
Hamburg, Ark.
905,000 Dairyland Electric Co-op,
Grand Rapids, Minn.
353,000 Northern Rio Arriba Elec. Co-op.,
Chama, N. Mex.
* 50,000 Roseau Electric Co-op,
Roseau, Minn.
332,000 Desert Electric Co-op,
Twentynine Palms, Calif.

830,000 Southeast Colorado Power Ass'n,
La Junta, Colo.
192,000 Sioux Electric Co-op,
Orange City, Iowa
280,000 Tri-County Electric Co-op,
Portland, Mich.
685,000 Cullman Electric Co-op,
Cullman, Ala.
375,000 Wiregrass Electric Co-op,
Hartford, Ala.
200,000 Medina Electric Co-op,
Hondo, Tex.
348,000 Wayne County Rural PPD,
Wayne, Nebr.
410,000 GarKane Power Ass'n,
Richfield, Utah
845,000 Tennessee Valley Elec. Co-op,
Savannah, Tenn.
* 25,000 Mohave Electric Co-op,
Kingman, Ariz.
720,000 Owen County Rural Elec. Co-op,
Owenton, Ky.
1,350,000 City of Bryan,
Bryan, Tex.
255,000 Rusk County Electric Co-op,
Henderson, Tex.
265,000 Altamaha EMC,
Lyons, Ga.

Telephone

\$1,606,000 Northern Illinois Tel. Co.,
Foreston, Ill.
264,000 Northern Kansas Tel. Co.,
Effingham, Kan.
191,000 Byron Telephone Co.,
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39,000 Tri-County Telephone Ass'n,
Basin, Wyo.
326,000 Peoples Rural Telephone Co-op,
McKee, Ky.
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